



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,789	08/29/2001	Nathan Henderson	3COM 3641-1	2943
22470	7590	04/21/2006	EXAMINER	
HAYNES BEFFEL & WOLFELD LLP			CAO, CHUN	
P O BOX 366			ART UNIT	
HALF MOON BAY, CA 94019			PAPER NUMBER	
			2115	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/942,789	<b>Applicant(s)</b> HENDERSON ET AL.	
	<b>Examiner</b> Chun Cao	<b>Art Unit</b> 2115	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-27 are presented for examination.
2. The text of those applicable section of Title 35, U.S. Code not included in this action can be found in the prior Office Action.
3. The rejections are respectfully maintained to the extended that is applicable to the amended claims and reproduced infra for applicant's convenience.
4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (Hwang), U.S. publication no. 2002/0188875 in view of Miner et al. (Miner), U.S. patent no. 6,690,655.

As per claim 1, Hwang discloses a computer system comprising:

a host processor including resources supporting a full power mode, a lower power mode and a power down mode; and a network interface coupled to the host processor and to a network [fig. 4; paragraph 0009] , the network interface comprising:

a memory that stores data packets in transit between the host processor and the network [Figure 3; paragraph 0024];

a medium interface unit coupled to network media supporting at least a high speed protocol and a lower speed protocol [paragraph 0024].

Hwang does not explicitly disclose power management logic which forces the medium interface unit from high speed protocol to the lower speed protocol in response to an event signally entry of said lower power mode.

Miner disclose that power management logic which forces the medium interface unit from high speed protocol to the lower speed protocol in response to an event

Art Unit: 2115

signally entry of said lower power mode [Figure 7; col. 4, lines 7-26; col. 10, lines 46-53; col. 20, lines 36-40; col. 21, lines 24-32, 48-52].

It would have been obvious to one of ordinary skill in the art at time the invention to combine the teachings of Hwang and Miner because they both disclose a network communication system, and the specify teachings of Miner stated above would have improved the performance and further reducing the amount or power consumed by the system.

As per claim 2, Miner discloses that the network interface in said lower power mode consumes less than a specified power when executing said lower speed protocol, and consumes greater than the specified power when executing said high speed protocol [col. 3, lines 13-18; col. 4, lines 20-26; col. 21, lines 24-32, 48-52].

As per claim 3, Hwang discloses that the network interface in said lower power mode consumes less than a specified power of about 1.3 watts, and the network interface requires greater than the specified power to support said high speed protocol [paragraph 0053].

As per claim 4, Hwang discloses that the network interface includes logic operating in the lower power mode using the lower speed protocol to detect a pattern in incoming packets, and in response to detection of said pattern, to issue a reset signal to the host processor [paragraph 0072].

As per claim 5, Hwang discloses that the medium interface unit comprises circuitry for formatting packets according to protocols compliant with 10 Megabit, 100 Megabit and Gigabit Ethernet protocol standards, and wherein said high speed protocol

is Gigabit Ethernet, and said lower speed protocol is one of 10 Megabit Ethernet and 100 megabit Ethernet [paragraph 0024].

As per claim 6, Hwang discloses that the medium interface unit comprises circuitry for formatting packets according to a protocol compliant with an InfiniBand protocol standard, and wherein said high speed protocol is InfiniBand [paragraph 0024].

As per claim 7, Miner discloses that host processor monitors the network interface for a wake up event involving a loss of link or a change of link on the network interface, and wherein said power management logic blocks signals indicating said wake up event for a time interval during the power management logic circuitry forces the medium interface unit to the lower speed protocol [Figure 7; col. 4, lines 7-26; col. 10, lines 46-53; col. 20, lines 36-40].

As per claim 8, Miner discloses event signaling lower power mode is a signal generated by the host processor [Figure 7; col. 4, lines 7-26; col. 10, lines 46-53; col. 20, lines 36-40].

As per claim 9, Hwang discloses that host processor includes a system bus coupled to the network interface said system bus having a full power mode, a lower power mode and a power down mode, and said event signaling lower power mode comprises a loss of power on the system bus [paragraph 0073]. Miner also discloses that host processor includes a system bus coupled to the network interface said system bus having a full power mode, a lower power mode and a power down mode, and said event signaling lower power mode comprises a loss of power on the system bus [fig. 2; col. 4, lines 7-26; col. 10, lines 46-53; col. 20, lines 36-40].

As to claims 10-18, claims 1-9 basically are the corresponding elements that are carried out the method of operating steps in claims 10-18. Accordingly, claims 10-18 are rejected for the same reason as set forth in claims 1-9.

As to claims 19-27 are written in mean plus function and contained the same limitations as claims 1-9. Therefore, same rejection is applied.

5. Applicant's arguments filed on 2/16/06, which have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of rejection indicated above.

6. In the remarks, applicants argued in substance that 1) Miner does not teach of using a separate protocol for each of the two downstream channels. 2) Hwang and Miner fail to teach or suggest a power management logic which forces the medium interface unit from high speed protocol to the lower speed protocol in response to an event signally entry of said lower power mode.

7. The examiner respectfully traverses. As to 1) There is no claimed language directed to the above limitations; and Miner teaches of using a separate protocol for each of the two downstream channels [col. 21, lines 24-57]. 2) Miner disclose that power management logic which forces the medium interface unit from high speed protocol to the lower speed protocol in response to an event signally entry of said lower power mode [Figure 7; col. 4, lines 7-26; col. 10, lines 46-53; col. 20, lines 36-40; col. 21, lines 24-32, 48-52].

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 18, 2006

  
**CHUN CAO**  
**PRIMARY EXAMINER**